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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,220	11/07/2001	Jason K. Trotter	ITWO:0016	5660
7590 07/10/2007 Tait R. Swanson Fletcher, Yoder & Van Someren P.O. Box 692289 Houston, TX 77269-2289			EXAMINER FERGUSON, MICHAEL P	
			ART UNIT 3679	PAPER NUMBER
			MAIL DATE 07/10/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/066,220

Applicant(s)

TROTTER ET AL.

Examiner

Michael P. Ferguson

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 75,78,79,82-99 and 101-125 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 75,78,83,86,95,96,99,102,103,115,116,123 and 124 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Continuation of Disposition of Claims: Claims withdrawn from consideration are 79,84,85,87,89,92-94,97,98,101,104-114,117-122 and 125.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Species 2 Subspecies a, Figures 4-6 and 10, claims 75, 78, 82, 83, 86, 95, 96, 99, 102, 103, 115, 116, 123 and 124, in the reply filed on March 26, 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 79, 84, 85, 87-94, 97, 98, 101, 104-114, 117-122 and 25 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species and subspecies, there being no allowable generic or linking claim. Election was made with traverse in the reply filed on March 26, 2007.

### ***Claim Objections***

3. Claims 102 and 103 are objected to because of the following informalities:  
  
Claim 102 (lines 1-2) recites "the first joint, or the second joint". It should recite --the first joint member, or the second joint member--.  
  
Claim 103 (lines 1-2) recites "the first joint, or the second joint". It should recite --the first joint member, or the second joint member--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 75, 78, 82, 102, 103, 115 and 116 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 75 (lines 1-4) recites "A system, comprising: an integral automotive linkage... comprising: a hollow elongated member". Claim 75 fails to clearly recite what elements are assembled together to constitute the claimed system; only one element of such system has been claimed, the automotive linkage. Accordingly, one is unable to determine what constitutes a "system" as recited in claim 75; thus one is unable to determine the metes and bounds of such claim. Claims 78, 82, 102, 103, 115 and 116 depend from claim 75 and are likewise rejected.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 75, 78, 82, 83, 86, 95, 99, 102, 103, 115, 116, 123 and 124 are rejected under 35 U.S.C. 102(b) as being anticipated by Lofqvist (US 2,716,564).

As to claim 75, Lofqvist discloses a system, comprising:

an integral linkage, capable of being mounted with a drilling machine defining an automobile, configured to link two or more elements integrally together in an assembly, comprising:

a hollow elongated member **10** having a constant cross-section along the entire length of the hollow elongated member, wherein the constant cross-section comprises a multi-sided interior defining first and second sockets at respective first and second opposite ends of the hollow elongated member, wherein the multi-sided interior comprises greater than four sides;

a first joint member **12** coupled to the first socket, wherein the first joint member comprises an attachment portion having a multi-sided perimeter mated with the multi-sided interior of the first socket; and

a second joint member **12** coupled to the second socket, wherein the second joint member comprises another attachment portion having another multi-sided perimeter mated with the multi-sided interior of the second socket (Figures 1-3, 7 and 8).

Examiner notes that an automobile has been recited as only intended use within claim 75. Accordingly, all that is required of such claim is a linkage capable of use within an environment containing an automobile.

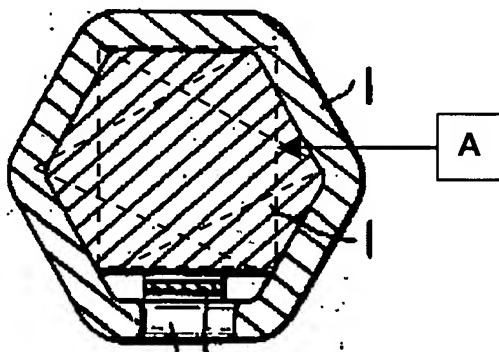
As to claim 78, Lofqvist discloses a system wherein the first and second joint members **12** comprise the same attachment portion (Figure 2).

As to claim 82, Lofqvist discloses a system wherein the constant cross-section is a uniformly extruded geometry along the entire length of the hollow elongated member **10** (Figure 1).

As to claim 83, Lofqvist discloses a system, comprising:

an elongated linkage **10** comprising a first end, a second end, and a uniform cross-section from the first end to the second end, capable of being mount integrally with a drilling machine defining an automobile, wherein the uniform cross-section comprises a geometry characterized by a plurality of superimposed squares (the cross-sectional shape of linkage **10** is defined by squares **A** layed over one another; Figure 3 reprinted below with annotations); and

a family of joints **12** each comprising a modular attachment portion configured to mate with the uniform cross-section at the first or second end of the elongated automotive linkage (Figures 1-3).



Examiner notes that an automobile has been recited as only intended use within claim 75. Accordingly, all that is required of such claim is a linkage capable of use within an environment containing an automobile.

As to claim 86, Lofqvist discloses a system wherein the uniform cross-section comprises a uniform hollow interior (Figure 2).

As to claim 95, Lofqvist discloses a system, comprising:

a family of linkage joints **12** having different geometries and joint mechanisms, wherein each of the family of linkage joints has a standard attachment portion

configured to mate with a uniform lengthwise cross-section of an elongated hollow linkage **10**, and configured to mount integrally with a component of a system of interconnected machine elements,

wherein the uniform lengthwise cross-section comprises a multi-sided interior having greater than four flat sides (Figures 1-3).

As to claim 99, Lofqvist discloses a system, comprising:

a linkage **10** having a uniform socket geometry along the entire length of the linkage, wherein the uniform socket geometry comprises a multi-sided interior defined by a plurality of superimposed squares (the cross-sectional shape of linkage **10** is defined by squares **A** layed over one another);

a first joint **12** coupled to the uniform socket geometry at a first end of the linkage; and

a second joint **12** coupled to the uniform socket geometry at a second end of the linkage opposite the first end, wherein the first and second joints are configured to mate integrally with first and second mating joints, respectively (Figures 1-3).

As to claim 102, Lofqvist discloses a system wherein the first joint **12**, or the second joint, or both, comprise-is a polygonal receptacle joint **23** (Figures 7 and 8).

As to claim 103, Lofqvist discloses a system wherein the first joint **12**, or the second joint, or both, comprise a circular receptacle joint **23** (Figures 7 and 8).

As to claim 115, Lofqvist discloses a system wherein the multi-sided interior comprises a geometry characterized by a plurality of superimposed multi-sided closed



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geometries (the cross-sectional shape of linkage **10** is defined by squares **A** layed over one another; Figure 3).

As to claim 116, Lofqvist discloses a system wherein the multi-sided interior comprises a geometry characterized by a plurality of superimposed squares (the cross-sectional shape of linkage **10** is defined by squares **A** layed over one another).

As to claim 123, Lofqvist discloses a system wherein the multi-sided interior comprises a geometry characterized by a plurality of superimposed multi-sided closed geometries (the cross-sectional shape of linkage **10** is defined by squares **A** layed over one another; Figure 3).

As to claim 124, Lofqvist discloses a system wherein the multi-sided interior comprises a geometry characterized by a plurality of superimposed squares (the cross-sectional shape of linkage **10** is defined by squares **A** layed over one another; Figure 3).

8. Claims 83, 86, 95, 96, 99, 123, 124 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurian et al. (US 5,938,534).

As to claim 83, Kurian et al. disclose a system, comprising:

an elongated automotive linkage **14** comprising a first end, a second end, and a uniform cross-section from the first end to the second end configured to mount integrally within an automobile, wherein the uniform cross-section comprises a geometry characterized by a plurality of superimposed squares **14a,14b**; and

a family of joints **12** each comprising a modular attachment portion configured to mate with the uniform cross-section at the first or second end of the elongated automotive linkage (Figures 1-3).

As to claim 86, Kurian et al. disclose a system wherein the uniform cross-section comprises a uniform hollow interior (Figure 2).

As to claim 95, Kurian et al. disclose a system, comprising:  
a family of linkage joints **12** having different geometries and joint mechanisms, wherein each of the family of linkage joints has a standard attachment portion configured to mate with a uniform lengthwise cross-section of an elongated hollow linkage **14**, and configured to mount integrally with a component of a system of interconnected machine elements,

wherein the uniform lengthwise cross-section comprises a multi-sided interior having greater than four flat sides (Figures 1-3).

As to claim 96, Kurian et al. disclose a system wherein the standard attachment portion comprises a square geometry (Figure 2).

As to claim 99, Kurian et al. disclose a system, comprising:  
a linkage **14** having a uniform socket geometry along the entire length of the linkage, wherein the uniform socket geometry comprises a multi-sided interior defined by a plurality of superimposed squares **14a, 14b**;

a first joint **12** coupled to the uniform socket geometry at a first end of the linkage; and a second joint coupled to the uniform socket geometry at a second end of the linkage opposite the first end, wherein the first and second joints are configured to mate integrally with first and second mating joints, respectively (Figures 1-3).

As to claim 123, Kurian et al. disclose a system wherein the multi-sided interior comprises a geometry characterized by a plurality of superimposed multi-sided closed geometries **14a,14b** (Figure 2).

As to claim 124, Kurian et al. disclose a system wherein the multi-sided interior comprises a geometry characterized by a plurality of superimposed squares **14a,14b** (Figure 2).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The following patent shows the state of the art with respect to linkage assemblies:

Sachs (US 2,726,357) is cited for pertaining to assemblies comprising a hollow elongated member having a multi-sided interior defining first and second sockets, and first and second joint members coupled to the first and second sockets.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MPF

06/22/07



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